

**CALIFORNIA ENERGY COMMISSION**

1516 NINTH STREET  
SACRAMENTO, CA 95814-5512  
[www.energy.ca.gov](http://www.energy.ca.gov)

**November 19, 2014****PON-13-301****Stage 2 Results****Developing a Portfolio of Advanced Efficiency Solutions: Technologies and Approaches for More Affordable and Comfortable Buildings**

On March 21, 2014, the California Energy Commission (Energy Commission) released a competitive grant solicitation to fund the research and development of next generation end-use efficiency technologies and strategies for the building sector. Up to \$25 million in Electric Program Investment Charge (EPIC) funding is available to fund applications in the following groups:

- Group A: Building Energy Efficiency Technology, and Codes and Standards Advancement
- Group B: Direct Current Applications for Future Zero Net Energy Buildings
- Group C: Roof Deck Insulation Analysis for New Residential, Zero Net Energy Buildings

The solicitation was structured as a two-stage solicitation process. Applicants who passed the Stage 1 abstract process were invited to submit a proposal in Stage 2. Stage 2 was a request for proposals, which consisted of a ten (10) page project narrative (along with additional supporting documents). Each proposal was screened using the Stage 2 Proposal Screening Criteria (Part V, Section F of the PON). Those proposals that passed screening were reviewed, evaluated and scored using the Stage Two Proposal Scoring Criteria (Part IV, Section G of the PON).

The attached "Notice of Proposed Awards" identifies each applicant selected and recommended for funding by Energy Commission staff and includes the recommended funding amount and score. The total amount recommended is \$24,774,927. If more funds become available, the Energy Commission reserves the right to fund additional passing projects.

This notice is being mailed to all parties who submitted an application to this solicitation and is also posted on the Energy Commission's website at: [www.energy.ca.gov/contracts/](http://www.energy.ca.gov/contracts/).

Funding of proposed projects resulting from this solicitation is contingent upon the approval of these projects at a publicly noticed Energy Commission Business Meeting and execution of a grant agreement.

For further information, please contact Angela Hockaday at (916) 654-5186 or at [Angela.Hockaday@energy.ca.gov](mailto:Angela.Hockaday@energy.ca.gov).

Sincerely,

**Angela Hockaday**  
Commission Agreement Officer



**California Energy Commission  
Notice of Proposed Awards (NOPA)  
PON-13-301, Stage 2  
Developing A Portfolio of Advanced Efficiency Solutions:  
Technologies and Approaches for More Affordable and Comfortable Buildings**

Proposal Number is used for internal tracking and does not represent ranking of the submitted proposals.

**Group A, Proposed Awards**

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Recommendation
130	The Regents of the University of California, University of California, Berkeley	Very Low-cost MEMS-based ultrasonic anemometer for use indoors and in HVAC ducts	88.530	\$2,488,964	\$2,488,964	June 30, 2015	Awardee
129	The Regents of the University of California, University of California, Berkeley, Center for the Built Environment	Optimizing Radiant Systems for Energy Efficiency and Comfort	87.719	\$2,939,964	\$2,939,964	June 30, 2015	Awardee
149	Lawrence Berkeley National Laboratory	Solar-Reflective "Cool" Walls: Benefits, Technologies, and Implementation	87.026	\$2,500,000	\$2,500,000	June 30, 2015	Awardee
157	The Regents of the University of California, University of California, Davis, California Lighting Technology Center	From the Laboratory to the California marketplace: A New Generation of LED Lighting Solutions	85.902	\$2,995,187	\$2,995,187	June 30, 2015	Awardee
144	Philips Lumileds Lighting Company	Innovation for Disruptive Efficacy and Cost Improvements of CRI 90 LEDs And LED Lamps	85.614	\$2,988,722	\$2,988,722	June 30, 2015	Awardee
145	Lawrence Berkeley National Laboratory	Developing Flexible, Networked Lighting Control Systems That Reliably Save Energy	85.256	\$1,875,000	\$1,875,000	June 30, 2015	Awardee
135	CREE Santa Barbara Technology Center	Novel High-Efficiency, Low-cost LED Luminaries	85.147	\$2,777,700	\$2,777,700	June 30, 2015	Awardee
142	Electric Power Research Institute (EPRI)	Development and Testing of the Next Generation Residential Space Conditioning System for California	85.140	\$2,993,005	\$2,993,005	June 30, 2015	Awardee
			<b>Subtotal:</b>	<b>\$21,558,542</b>	<b>\$21,558,542</b>		

**Group B, Proposed Awards**

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Recommendation
150	Lawrence Berkeley National Laboratory	Direct Current as an Integrating and Enabling Platform	91.993	\$1,000,000	\$1,000,000	June 30, 2015	Awardee
			<b>Subtotal:</b>	<b>\$1,000,000</b>	<b>\$1,000,000</b>		



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**Group C, Proposed Awards**

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Recommendation
146	Lawrence Berkeley National Laboratory	Comparing Attic Approaches for ZNE Homes	84.773	\$1,000,000	\$1,000,000	June 30, 2015	Awardee
154	BIRA Energy	Energy Efficient and Cost Effective Attic Design Suitable for New Homes in Hot and Dry and moderate but Moist CA Climates	73.137	\$1,216,385	\$1,000,000	June 30, 2015	Awardee
			<b>Subtotal:</b>	<b>\$2,216,385</b>	<b>\$2,000,000</b>		

**Group A, Passed But Not Funded (Could be considered for funding if additional funds become available)**

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Recommendation
161	Electric Power Research Institute (EPRI)	Climate Appropriate Innovations for VRF Systems: Adaptive Cloud Controls, Advance Refrigerants, Dedicated Outdoor Air Systems (DOAS) & Indirect Evaporative Cooling for Enhanced Heat Recovery Ventilation	84.856	\$2,834,721	N/A	N/A	Insufficient funds available for project
148	Lawrence Berkeley National Laboratory	High-Performance Integrated Window and Façade Solutions for California Buildings	84.768	\$3,000,000	N/A	N/A	Insufficient funds available for project
143	Electric Power Research Institute (EPRI)	Intelligent HVAC Controls for Low Income Households: A Low Cost Non-connected Device that Understands Consumer Preferences and Performs Adaptive Optimization	83.815	\$2,705,759	N/A	N/A	Insufficient funds available for project
160	The Regents of the University of California, University of California, Davis, Western Cooling Efficiency Center	Low Cost, Large Diameter, Shallow Ground Loops for Ground Coupled Heat Pumps	82.696	\$1,235,223	N/A	N/A	Insufficient funds available for project
159	The Regents of the University of California, University of California, Davis, Western Cooling Efficiency Center	Managing Airflow in Large Buildings	82.347	\$1,177,019	N/A	N/A	Insufficient funds available for project
134	The Regents of the University of California; University of California, San Diego	Wet Roof: a bio-inspired design of cooling buildings	82.16	\$1,595,345	N/A	N/A	Insufficient funds available for project
147	Lawrence Berkeley National Laboratory	A Comprehensive Strategy to Reduce Plug Load Electricity Use: Observable, Controllable, and More Efficient	81.23	\$2,775,000	N/A	N/A	Insufficient funds available for project
133	Next Energy Technologies	Advanced Windows and Films Utilizing Semitransparent Printable Organic Small Molecule Semiconductors: A Low Cost Energy Efficiency and Energy Generation Solution	81.021	\$2,500,000	N/A	N/A	Insufficient funds available for project
127	The Regents of the University of California, University of California, Los Angeles	Advanced solid state cooling modules and associated holistic and predictive control/integration schemes for high-efficiency zonal air conditioning	79.818	\$1,743,750	N/A	N/A	Insufficient funds available for project



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**Group A, Passed But Not Funded (continued) (Could be considered for funding if additional funds become available)**

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Recommendation
165	Glint Photonics, Inc.	Passive-Tracking Concentrator Daylight System	79.573	\$1,900,000	N/A	N/A	Insufficient funds available for project
128	National Renewable Energy Laboratory	Developing an Efficient, Reliable, and Cost Competitive Switched Reluctance Motor for HVAC Applications	79.23	\$2,500,000	N/A	N/A	Insufficient funds available for project
166	ProspectSV	Advanced Ventilation Optimization for Centrally Controlled HVAC Buildings	77.972	\$2,194,822	N/A	N/A	Insufficient funds available for project
132	The Regents of the University of California; University of California, San Diego	INVITE24: Innovative natural ventilation - implementation in Title 24	76.25	\$2,800,364	N/A	N/A	Insufficient funds available for project
151	The Regents of the University of California, University of California, Davis, Program for International Energy Technologies	Low-cost GHP retrofits using horizontal drilled ground loops	74.28	\$1,843,897	N/A	N/A	Insufficient funds available for project

**Group A, Not Passed**

Proposal Number	Applicant	Project Name	Score (Criteria 1-4; Min 49 Required)	Funds Requested	Proposed Award	Projected Project Start Date	Notes
140	RMS Energy Consulting, LLC	Walk-in Cooler and freezer of the Future	48.75	\$2,363,085	N/A	N/A	Did not meet minimum score for Criteria 1-4
153	View, Inc.	Dynamic In-Fill; A Low Cost High-Efficiency Windows Upgrade Technology	47.75	\$2,480,120	N/A	N/A	Did not meet minimum score for Criteria 1-4
155	Benningfield Group, Inc.	The Next Generation Dynamic Modular Wall: Moving Toward ZNE Envelopes	47.25	\$2,199,253	N/A	N/A	Did not meet minimum score for Criteria 1-4
158	Lucent Optics, Inc.	Advanced building interior lighting using daylight-redirecting glazing, energy-efficient luminaires and luminaire-dimming controls	47	\$2,170,964	N/A	N/A	Did not meet minimum score for Criteria 1-4
164	Modula S, Inc.	Modula S Advanced Building Envelope Systems, Material & Components	44.5	\$2,500,000	N/A	N/A	Did not meet minimum score for Criteria 1-4
131	BrightBox Technologies	Autonomous Model-Based Building Commissioning	42.5	\$1,250,000	N/A	N/A	Did not meet minimum score for Criteria 1-4
124	Cold Machines, Inc.	Monitoring and Management of HVAC Systems on Small to Medium Commercial Buildings	37.75	\$1,500,000	N/A	N/A	Did not meet minimum score for Criteria 1-4



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PON-13-301, Stage 2

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Group A, Disqualified

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Notes
123	Oak Ridge National Laboratory	Enhancing the Sustainability of Single Ply Roof Coverings on Low Sloped Wood Decks in California	N/A	\$1,498,320	N/A	N/A	Did not pass the Stage 2 proposal screening
125	Gas Technology Institute	Solar Hybrid Cooling and Domestic Hot Water	N/A	\$1,425,221	N/A	N/A	Did not pass the Stage 2 proposal screening
126	The Regents of the University of California, University of California, Berkeley	OpenBAS: Providing Comfortable and Energy Efficient Commercial Buildings Through Affordable HVAC, Lighting, and Plug Control	N/A	\$3,000,000	N/A	N/A	Did not pass the Stage 2 proposal screening
136	Pacific Northwest National Laboratory	Improving the Operational Efficiency of Small Commercial Buildings and Enhancing Grid Reliability through an Innovative Solution	N/A	\$2,361,757	N/A	N/A	Did not pass the Stage 2 proposal screening
137	The Regents of the University of California; University of California, Irvine	Networked Energy Efficiency in Home Entertainment Systems: Duty Cycle Optimization, Service Sharing and Negotiation	N/A	\$2,992,136	N/A	N/A	Did not pass the Stage 2 proposal screening
139	Fujitsu Laboratories of America	Human-Centric Information and Communication Technologies for Energy Efficiency and Demand Response	N/A	\$1,250,000	N/A	N/A	Did not pass the Stage 2 proposal screening
141	Aggios	Mobile Efficiency for Plug Load Devices	N/A	\$2,979,837	N/A	N/A	Did not pass the Stage 2 proposal screening
152	Pacific Northwest National Laboratory	Smart performance Monitoring and fault Detection System for Residential Air Conditioners and Heat Pumps	N/A	\$2,060,729	N/A	N/A	Did not pass the Stage 2 proposal screening
156	The Regents of the University of California, University of California, Davis, California Lighting Technology Center	Optimizing Daylight Harvesting	N/A	\$2,918,657	N/A	N/A	Did not pass the Stage 2 proposal screening
162	Tranquility America, Inc.	Next Generation Absorption Chiller Development	N/A	\$2,130,000	N/A	N/A	Did not pass the Stage 2 proposal screening
163	The Regents of the University of California, University of California, Davis, Western Cooling Efficiency Center	Technologies to Improve the Effectiveness of Residential HVAC: A Multi-center Trial in Different Household Types	N/A	\$2,798,670	N/A	N/A	Did not pass the Stage 2 proposal screening

Group B, Disqualified

Proposal Number	Applicant	Project Name	Score	Funds Requested	Proposed Award	Projected Project Start Date	Notes
138	PeakNRG, Inc.	Enhanced DC Nanogrid Demonstration with Networked Distribution Energy Storage	N/A	\$783,328	N/A	N/A	Did not pass the Stage 2 proposal screening